

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended): A battery comprising a battery body including:

a positive electrode and a negative electrode each containing an active material, where the positive electrode and the negative electrode each has an uneven surface defining a space;

an electrolytic solution containing an electrolyte; and

an adhesive resin layer which is interposed in between the positive electrode and the negative electrode and is joined directly to both the positive electrode and the negative electrode, wherein

the adhesive resin layer consists of one layer and contains an adhesive resin and a filler, where the adhesive resin comprises a polymer selected from the group consisting of polyvinylidene fluoride homopolymer and polyvinyl alcohol;

the adhesive resin layer fills the space defined by the uneven surface of the positive electrode and the space defined by the uneven surface of the negative electrode;

a weight ratio of the adhesive resin to the filler is not less than 1/5 and not more than 2;

an average particle size of the filler is equal to or smaller than a particle size of the active material constituting each electrode; and

the adhesive resin layer is connected to the positive electrode and the negative electrode at a predetermined peel strength in a range of from 50 gf/cm to 85 gf/cm.

Claim 2 (Previously Presented): A battery according to claim 1, wherein the electrolyte is an organic electrolyte containing lithium ions.

Claims 3-4 (Canceled)

Claim 5 (Previously Presented): A battery according to claim 1, wherein the sum of a volume ratio of the adhesive resin and that of the filler per unit volume of the adhesive resin layer is less than 1.

Claim 6 (Previously Presented): A battery according to claim 1, wherein the sum of a volume ratio of the adhesive resin and that of the filler per unit volume of the adhesive resin layer is 0.2 to 0.8.

Claim 7 (Previously Presented): A battery according to claim 1, wherein the filler comprises at least one of non-conductive materials and semiconductors.

Claim 8 (Previously Presented): A battery comprising a battery body including:
a positive and a negative electrode containing an active material,
an electrolytic solution containing an electrolyte, and
an adhesive resin layer which is interposed in between the positive electrode and the negative electrode and is joined directly to both of the positive and the negative electrodes,
wherein

the adhesive resin layer comprises at least one layer and contains fillers; and
the adhesive resin layer comprises a layer containing an electrically conductive filler and a layer containing at least one of non-conductive fillers and semiconductive fillers.

Claim 9 (Canceled)

Claim 10 (Previously Presented): A battery according to claim 1, wherein the battery body is a laminate of a plurality of electrode bodies each consisting of the positive electrode, the adhesive resin layer, and the negative electrode.

Claim 11 (Previously Presented): A battery according to claim 10, wherein the laminate of a plurality of electrode bodies comprises a plurality of positive electrodes, a plurality of negative electrodes and a plurality of adhesive resin layers; and the plurality of positive electrodes and the plurality of negative electrodes are interposed alternately among the plurality of adhesive resin layers.

Claim 12 (Previously Presented): A battery according to claim 11, wherein the laminate is rolled up.

Claim 13 (Previously Presented): A battery according to claim 11, wherein the laminate is folded.

Claim 14 (Previously Presented): A method of making a battery, the method comprising

assembling a positive electrode, a negative electrode; an electrolytic solution and an adhesive resin layer in a battery body; and

forming the battery of Claim 1.

Claims 15-16 (Canceled)

Claim 17. (Previously Presented): The battery according to claim 1, wherein the particle size of the filler is not more than 0.1 μm .

Claim 18 (Canceled)

Claim 19 (Previously Presented): A battery according to claim 17, wherein the particle size of the filler is in a range of 0.01 μm to 0.1 μm .

Claim 20 (Currently Amended): The battery according to claim 1, wherein the adhesive resin comprises polyvinylidene fluoride homopolymer.

Claim 21 (Currently Amended): The battery according to claim 1, wherein the adhesive resin consists of polyvinylidene fluoride homopolymer.